



THOMAS G. NEWMAN,  
EDITOR.

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## EDITORIAL BUZZINGS.

**The Editor**, after awarding the Premiums at the Detroit Fair and Exposition, returned home by way of the Lakes, for the purpose of resting, for six days, his tired brain, and adding strength to his system. For since his severe attack of *La Grippe*, and its legacies of disease, his usual strength has not fully returned. He arrived at home just as this issue of the BEE JOURNAL was all in type with the exception of a few inches of space on the editorial page. In the next issue he will more fully describe the Honey Exhibit at Detroit, and make some comments upon the manner of arranging exhibits to be "the most attractive," and, at the same time, the most beneficial to the general public by advertising honey, and making known its many uses and possibilities in nature and art.

**The Michigan State Convention** is to be held in Detroit, Mich., on Jan. 1, 1891, and it is very much desired that it shall be a grand meeting. To that end Prof. Cook, the President of the Association, calls attention to the coming session of Michigan bee-keepers in the following, to which we invite special notice:

I wish to call attention early to the next meeting of our Michigan State Bee-Keepers' Association, which is to be held in the city of Detroit, on Thursday, Jan. 1, 1891. It will be remembered what a grand meeting the National Bee-Keepers' Society had in Detroit. We hope that this will be "a close second" in interest and profit. It is held on New Year's day, so all may get one-half rates on the railroads. It is hoped and expected that there will be a large attendance from Ontario, Ohio, New York, Indiana, and other States. Let all plan in advance to be there, prepared to take a part.

A. J. Cook, Pres.

**Gleanings** in Bee-Culture for Sept. 1 came out in a neat new dress of type, and looks very attractive and readable. We are glad to note this fresh evidence of increasing prosperity.

Bro. Root has our thanks also for his very kind notice of our late visit at his establishment. We enjoyed the time there spent very much, and hope to see it again before another 15 years shall have elapsed—for that was the time intervening since we last called on Bro. Root, at Medina, O.

How things have changed since then! At that time he was keeping a small jewelry store, and had but just commenced to make bee-supplies. Then a small store provided the room, and a little wind-mill supplied the necessary "power" to run a small saw, etc.—now it requires a 150 horse-power engine to run the establishment, which consists of four large two-story buildings, with another in course of erection, 87x100 feet.

Medina is to have another railroad—a close connection for Chicago and the West. This is being built through the "Root" farm, and will cross the other railroad just at the Factory.

We most fully endorse the sentiments expressed by Bro. Root about the "pleasant and brotherly relations" between us. Editors, like others, should be able to enjoy a visit at rival establishments, or at least be friendly enough to work together for the general good of the pursuit in which they are engaged. We never had a more pleasant time, and we most fully endorse the sentiment expressed by Bro. Root, that "long after the present editors have been gathered to their Eternal Home," the harmonious relations may exist between the two periodicals, and mutual "reverence and respect" be felt by those who may succeed us.

**Struggle for Supremacy** with the breeders of live stock, and manufacturers of agricultural machinery, and contests for prizes in all that pertains to agricultural pursuits, will be the event of the season. The Indiana State Fair has a National reputation, and is noted for its leading features, which will be amply sustained in the forthcoming exhibition, commencing Sept. 22, as set forth in the premium list, furnished on application to the Secretary at Indianapolis.

Several thousand dollars in increased premiums and improvements, including a new Floral Hall, and four new horse-barns, improved water facilities and rapid transportation, give indication of the efforts of the management to insure success.

**Prof. A. J. Cook**, of Agricultural College, Mich., has sent us a copy of the programme at the meeting of the "American Association for the Advancement of Science," held at Indianapolis, Ind., on Aug. 26, 1890. We are glad to note therein

that our genial friend, the Professor, was elected Secretary of the "Biological Section" of the Association. The next meeting will be held in Washington, D. C., in August, 1891.

**Bro. W. Z. Hutchinson**, editor of the *Bee-Keepers' Review*, will award the Premiums in the Bee and Honey Department at the Fair at Port Huron, Mich., on Sept. 17, 1890. The display will no doubt be good, the Premiums will be awarded strictly according to merit by an efficient judge, and on Thursday the bee-keepers should be present to have a nice visit and re-union.

**Dr. J. P. H. Brown**, of Augusta, Ga., we learn with regret, has been laid up with sciatica for some months, but is "himself again" now. In a letter just received he remarks thus:

I must congratulate you on the "make up," and on the solid, substantial matter in the ILLUSTRATED HOME JOURNAL. You need not be ashamed of it, for it is just the thing for the family fireside—a spur to intellect, a guide to good morals, and a teacher of refinement.

**Mr. Ernest R. Root**, as reported on page 595 of the BEE JOURNAL, has returned from visiting New York and Vermont bee-keepers, and inspecting their apiaries, the results of which he is graphically portraying in pleasant "notes on the way" in *Gleanings in Bee-Culture*. We take pleasure in giving a few of the "notes" on page 616, describing visits to our genial friend and voluminous correspondent, Mr. G. M. Doolittle, and also to Messrs. P. H. Elwood and J. R. Tunnicliff, near the same region. Such a trip on the "wheel" cannot fail to be enjoyed by the visited as well as by the visitor, and will serve to unite in closer bonds of friendship all lovers of the "little busy bee."

**All Who Subscribe** for the AMERICAN BEE JOURNAL can hereafter have our ILLUSTRATED HOME JOURNAL also, from the time their subscriptions are received to Jan. 1, 1892—both papers for only \$1.35. We can also furnish *Gleanings in Bee-Culture* for a year with the above for \$2.15 for all three periodicals. This is an offer that should be accepted by all who keep bees, and desire the regular visits of these standard publications.

**Rollie Ryan**, the "beloved boy of the household" of Mr. R. R. Ryan, of Bradshaw, Nebr., died after a sickness of but six days with congestion of the bowels. Mr. Ryan is one of our correspondents, and a prominent apiarist in his State. We extend to the bereaved family the sincerest sympathy of the BEE JOURNAL and its readers in this time of their sad affliction.

**Much of the Injury** done to fruit is charged up to the bees by those who do not take the trouble to think or reason the matter to a natural conclusion. But over-ripe fruit will crack open, bees or no bees, and then it is useless for the market. All that can be charged against the bees, is the fact that when the skin of the fruit has been punctured by birds, wasps, etc., or has cracked open, then the bees will carry off the juices to their own detriment.

Almost every one has noticed that juicy fruits, such as plums, peaches, grapes, tomatoes, etc., will be cracked by a rain.

In the New Orleans, La., *Times-Democrat*, a correspondent who signs himself as "H. J.," gives the following as his opinion concerning the cause of the cracking of fruit:

This cracking has been explained in various ways, but we think it is properly attributed by Bossingault to *osmose*.

If a bladder filled with syrup be immersed in a vessel of water, the water will, after awhile become sweet; the syrup passes through the membrane of the bladder into the water, and correspondingly the water passes into the interior of the bladder.

But this interchange is not an equal one; the lighter liquid—the water—passes in many times more rapidly than the heavier liquid, the syrup, passes out. The consequence will be that the bladder will be distended to its utmost, and at length burst. A ripe tomato or plum may be considered in the condition of the bladder of syrup. The rich juices of the fruit correspond to the syrup, and the thin membrane which forms the skin of the fruit represents the bladder.

When the ripe fruit is kept constantly wet by a rain, *osmose* takes place, and the water passing through into the fruit distends the skin, which, not being very strong, is soon ruptured. If the fruit were to be surrounded by a liquid denser than its juices, it would, instead of expanding and breaking, shrink, and the skin become shriveled.

When strawberries or blackberries are sprinkled with sugar, a syrup is soon formed by some of the juice of the fruit, and this being considerably denser than the juices of the berries, they are soon very flabby and shriveled.

**The Raspberry**, among all the trees and shrubs which are cultivated generally throughout the United States by fruit-growers, is commonly conceded to possess more value to bee-keepers than any other, says Prof. N. W. McLain, of the Minnesota Experiment Station. A quarter of a mile from this Station a market-gardener has four acres of raspberries. These bushes continued to bloom for ten days, and during that time, with the exception of two or three rainy days, a continuous procession of bees could be observed going and returning to and from the apiary, and a fine showing of honey was made in the hives, and the honey was of superior quality.

**Weak Colonies** should be doubled up until they are strong, when preparing the bees for winter. Do not endeavor to winter small colonies, as it almost invariably results in loss.

**Preparing Bees for Winter.**—In his annual report of the Colorado Experiment Station, Prof. C. Max Brose writes as follows:

The successful wintering of bees is of the greatest importance to the bee-keeper. On it, depends his success or failure for the following summer; and, in order that every colony may be strong in the spring, eager to start the summer campaign of gathering stores for themselves and their owner, the following points are of greatest importance to the apiarist:

The colonies should go into winter quarters with plenty of young bees—at least four frames should be well covered with them—and 85 pounds of sealed honey. They should be kept at an even temperature—45 to 50 degrees—and never be unnecessarily disturbed. The hive should be in such a condition as to absorb all the moisture generated by the bees during the winter.

Before cold weather sets in, all the colonies should be examined, and if either stores or bees are lacking, they should be supplied during warm weather. In this region, we advise examining all the hives by the first of September. One of the greatest errors that the novice in bee-culture will make, is in the wintering of weak colonies. These should be united until they are strong enough to well cover at least four Langstroth frames.

The space in the hives should be closed to at least four frames by chaff division-boards, and enlarged as the colony gains in strength, and needs more room. Every night they should be fed about one-half pint of syrup made from granulated sugar. The bees will go to work as eagerly as if it were in the month of June. The queen will lay, and by the time your four or five frames are full of brood and sugar syrup, and the space closed down to the size of the colony by chaff division-boards, a chaff cushion over them, they are safer to winter.

Bees in a warm climate need no protection during the winter, but where the winters are severe, they must be protected from cold and damp weather.

The chaff hive solves the problem of successful wintering.

1. It keeps the air dry, and at as even a temperature as possible, below and above the inside body of the hive being packed with chaff. It absorbs all the moisture generated by the bees during cold weather, and, being also a non-conductor, it responds slowly to the sudden changes of the weather.

2. Bees are kept undisturbed and quiet, allowing them a chance to take a flight, so necessary during a warm spell, without the undue excitement caused by the carrying from and to the cellar.

3. Being warm at all times in a chaff hive, it will give the bees a run to all parts of the interior, even during winter weather.

4. It is the most natural way for bees to winter.

☞ The Texas *Siftings* compliments the bee on its good sense and business ability, and says:

"How doth the busy little bee  
Improve each shining hour?  
It gets a hustle on itself  
And works the early flower."

The bee also teaches the foolishness of working and laying by more than is needed for some one else to come along and make merry over, as the man who so kindly provides them with a nice little hive takes the lion's share of the honey. Alas! in this world it is often the case that the man who lives in the nice house is working for the benefit of the mortgagee.—*Exchange*.

**The Color of the Honey** produced very often has much to do with its prompt sale upon the market, whether it be honey in the comb or extracted. In regard to this subject, Annie C. Webster writes thus in the *American Cultivator*:

As a rule a dry season is less favorable to bee-keepers than a wet one; but, on the other hand, too wet a season is not desirable. In very wet seasons the plants produce honey so rapidly that it is coarse in flavor, and the honey, when prepared for market, is not as fine in flavor and taste. The plants are unduly forced in their growth by the stimulating powers of the moisture, and their products are not as fine and as well matured as those of slower growth. The bees sometimes change the color and quality of the honey, if they are in good condition physically, but, as a rule, the honey that is placed on the table is not much altered from that taken directly from the plants.

There seems to be a general prejudice against dark honey, and it never sells until all of the white honey is disposed of. The clear amber probably sells better than either one. Dark honey gathered from buckwheat is inferior in quality, but dark chestnut honey is of superior flavor. But appearances go a long way towards selling an article, and bee-keepers should remember that good dark honey will not bring its fair price. In planting for bees, it is just as well, then, to plant only such crops that produce the light or amber colored honey of commerce.

Buckwheat may also be sown, but too much of this gives a decidedly dark color to the honey, and an inferior quality. One should have the ambition to make the honey product of the farm as well known for its quality as the fruits, for in this way a better price can in time be obtained for it.

There are so many compounds called "honey" in the market, that the genuine article becomes swamped, and no fancy price will be paid for it unless the purchaser is assured that it comes from a certain apiary, noted for its fine honey-production. A name of sending nothing but the best of honey to market, is worth something to the apiarist.

**Bees Die from Stinging.**—That bees are not killed by the act of stinging, is maintained by a prominent apicultural student and writer, who says that a bee which stung him and lost its sting lived for weeks—or for a "week or two." Prof. A. J. Cook, in the *N. Y. Tribune*, says that on the contrary his students have tried this experiment repeatedly, and have invariably come to just the opposite conclusion. In their tests they "take several bees that have sacrificed their stings by use, and place them in a cage with feed. In another cage, precisely similar, sound bees are placed. Invariably the lacerated bees die first, and usually very soon. We have but to remember that the barbs on the lancets of the sting take fast hold and pull the sting from the bee that is brave enough to use it. Now the injury from stinging may be greater or less, depending upon firmness of the hold, and we understand how the wounded bee may live for some days; but when we compare them with healthy bees, then we see a striking difference."



**Alfalfa as a Honey-Plant** is considered very fine in western portions of the United States, where it is cultivated extensively as a fodder for farm stock in general, and for honey in particular. Its history, characteristics, and directions for planting are given in the following from one of our agricultural exchanges:

Alfalfa has been in cultivation since very ancient times, being introduced from western Asia into Greece about 500 years B. C. It is of general cultivation in both hemispheres. On the pampas of Buenos Ayres it has escaped from cultivation, and grows extensively in a wild state; likewise in parts of Mexico. Though known for a long time in this country, it is not cultivated to the extent that it should be.

Alfalfa is a perennial, and especially adapted to dry climates, withstanding drouth better than other clovers. Tenacious lands that hold water are not suitable for its culture unless well drained. A permeable sub-soil is best, as it allows the roots to penetrate to a great depth—8 to 20 feet.

Before seeding, have the ground in a thoroughly pulverized condition, and sow early in the spring, so that there will be time for the plants to become well established before they are subjected either to drouth or extreme cold. If seed is sown broadcast, 20 pounds per acre will be required; if in drills, 15 pounds will be enough. If raising seed is the main object, then 12 or 14 pounds to the acre will give the best results, as the plants will be more vigorous, and yield more seed. Drill culture gives the best results, especially if the soil be dry or weedy. The drills may be 12 to 18 inches apart, according to the tool used in cultivating. Seed if sown broadcast gives the best results if put in alone.

Alfalfa should be neither mowed nor pastured until it has made considerable growth and got well established. As a soiling plant it has no superior, being sometimes mowable 5 to 7 times in one season, and yielding a large amount at each cutting of nutritious hay, which is relished by all kinds of stock. For hay, cut as soon as the blossom appears, and cure so as to prevent loss of leaves in drying. The seed is saved from the second crop, and amounts to 10 to 14 bushels per acre. The yield per acre of hay is from 4 to 6 tons.

The splendid qualities of the honey gathered from alfalfa are thus commented upon by Mr. A. I. Root, editor of *Gleanings*, when giving his opinion of a sample received from a bee-keeper residing in Broomfield, Colo.:

The sample of alfalfa honey is not only the finest in appearance of any honey I ever saw in my life, but it is also equal in flavor. It is almost if not quite as clear as water, and yet during a hot July day it will scarcely run. It is as clear as a crystal, and exquisite in flavor. Very likely our friend has not a ton of such honey; but if he has, I should think it would be a small fortune if he could get it before the class of people who buy gilt-edge butter, and things of that sort. And, by the way, we are using alfalfa honey on our table day after day. I never ate any other honey that suited so well, and for so great a length of time. At present the outlook seems to be that alfalfa honey is destined to lead the world.

**Supply Dealers** who desire to handle a good Bee-Veil, should write for our dozen rates on the "Globe" Bee-Veils, to sell again.

### MY OWN BEES.

BY STELLA A. ALLEN.

Down in the red and white clover,  
Under the sassafras tree,  
Stands a colony of Italians,  
That my father has given to me.  
They have a fairy-like palace,  
Beneath those shady bowers,  
And fruit of many day's labor,  
The balm of a thousand flowers.

Within that royal domain,  
That is seldom brought to view,  
Is a form that walks amid her train  
With her hands of golden hue.  
Right royal are her subjects,  
As willing to do or dare,  
To protect themselves from danger,  
And their queen of beauty rare.

And on their rustic seat I sit,  
And watch their eager haste,  
As they carry in sweet stores of food—  
Not a moment runs to waste.  
And a useful lesson, too, I learn,  
As they gather in their store.  
I, too, may lay up treasures,  
Of wealth and wisdom's lore.

### QUERIES and REPLIES.

#### Paper-Cuttings vs. Sawdust for Winter Packing.

Written for the American Bee Journal

QUERY 728.—1. Would there be any objection to using paper-cuttings, such as we find in book binderies or printing offices, for winter packing? 2. Would it be as desirable as sawdust?—A. R.

1. No. 2. Yes, if not better.—DADANT & SON.

1. No. 2. I think so if well packed.—A. J. COOK.

1. I think not. 2. I would prefer sawdust.—M. MAHIN.

I do not know. I would try a few hives first.—EUGENE SECOR.

1. Dry hard-maple leaves will beat it. 2. I think not.—J. M. HAMBAUGH.

It will make good winter packing, I should say.—JAMES HEDDON.

1. No. 2. I would prefer the cuttings to sawdust.—J. P. H. BROWN.

I doubt if you can tell any way but by trying.—C. C. MILLER.

1. I have had no experience with that material.—R. L. TAYLOR.

1. No, I think not, but I consider oat-straw chaff the best and cheapest.—Mrs. L. HARRISON.

1. I think the paper-cuttings would be safe, but I should prefer the sawdust.—C. H. DIBBEN.

I have had no experience in winter packing, but should think that dry sawdust would be most desirable.—A. B. MASON.

1. It would mold. 2. Sawdust would be much better. I have better success with dry maple leaves.—H. D. CUTTING.

1. I should think that it might do well. I never used any, so I could not tell how it would compare with sawdust.—G. M. DOOLITTLE.

1. I would not use the paper, if chaff or straw could be procured. 2. I should prefer the sawdust to the clippings. Bran is good.—J. M. SHUCK.

1. I have never tried it, but I am not favorably impressed with its fitness for the purpose of an absorbent. 1. I think not.—G. W. DEMAREE.

1. I think not. 2. Yes, I believe it would be very much better, for I think sawdust the most undesirable packing for winter I ever used.—G. L. TINKER.

1. None at all. 2. I think that it would be more so, if finely cut and perfectly dry. It certainly would not be so apt to collect and retain moisture, as would sawdust. For myself, I prefer an air-space instead of filling.—J. E. POND.

### BEE CONVENTIONS.

**The Southwestern Wisconsin Bee-Keepers' Association**, which meets at the residence of E. France, in Platteville, Wis., on Oct. 8, 1890, promises to be a very profitable gathering of the apiarists of that progressive State. All are invited to attend. The following subjects are announced, and will be carefully prepared and presented, after which interesting discussions thereon will ensue:

Implements in the Apiary, by F. L. Snyder, of Orion.

Artificial Swarming, by E. France, of Platteville.

Natural Swarming, by G. O. Miller, of Boscobel.

Comb Foundation, by Benj. E. Rice, of Boscobel.

Best Way for Hives to Face, by B. Bartholomew, of Boscobel.

Races of Bees, by N. E. France, of Platteville.

Wintering Bees In Doors or Out, by Chas. Zelmer, of Wauzeka.

Feeding Bees, by M. M. Rice, of Boscobel.

Locating an Apiary, by Court Main, of Boscobel.

Size of Hives, by W. H. Prideaux, of Bloomington.

Queen-Rearing, Introducing, etc., by A. Arms, Hurlbut's Corners.

Marketing Comb and Extracted Honey, by H. Evans, of Wauzeka.

Help by Our Society, National, State and Local, by N. E. France, of Platteville.

Honey-Plants—Wild or Cultivated, by J. W. Van Allen, of Haney.

How Best to Extract, by Edwin Pike, of Boscobel.

Robbing—Cause and Cure, by A. E. Collie, Mt. Hope.

B. E. RICE, Sec'y.

#### Convention Notices.

☞ The Southwestern Wisconsin Bee-Keepers' Society, will meet on Oct. 8, 1890, at the residence of E. France, Platteville, Wis. B. RICE, Sec.

☞ The fall meeting of the Central Michigan Bee-Keepers' Association, will meet in the Pioneer Rooms, Capitol Building, Lansing, Mich., on Wednesday, Oct. 15, 1890, to commence at 10 a.m. W. A. BARNES, Sec.

☞ The Capital Bee-Keepers' Association will meet in the Supervisors' Room of the Court House, in Springfield, Ill., at 10 o'clock, a.m., on Sept. 26, 1890. Come, and let us have a good time. C. E. YOCOM, Sec.

**Clubs** of 5 for \$4.00 to any addresses. Ten for \$7.50, if all are sent at one time.

## CORRESPONDENCE.

### QUEENS.

#### A Safe Method of Introducing Queen-Bees.

Written for the American Bee Journal  
BY DR. G. L. TINKER.

The traffic in queen-bees would undoubtedly be greater than it is, if bee-keepers had a perfectly safe method of introducing. At the present time we have in this country many expert queen-breeders who have for years spared no end of pains and trouble to improve their bees. The stock is the very best of the strains of bees they advertise, and its introduction into other apiaries is certain to be followed by good results from new crosses, and the infusion of new blood.

The great drawback with many bee-keepers from investing in the much-coveted stock is the fear that they may lose the queens in introducing. Many have already ventured and lost fine queens, and if they decide to try it again, it is with a feeling of great uncertainty that they may lose others, if purchased.

Now is the best time of the season—August and September—to introduce queens, according to my experience, but more care is required than during a honey-flow. Still, I can see no reason why any one cannot introduce queens now with perfect safety, to strong colonies. My method is this:

If I send away for a queen, I make no preparation to introduce her until she arrives. Then I select a strong colony, and remove the queen and close the hive. In from two to three hours afterwards, the bees will miss their queen and begin to look for her. They become greatly agitated, and are often in a condition to receive any strange queen that might be given direct. Now this is the proper time to give the new queen, but if we are to make a *sure* thing of it, she must be caged.

The cage in which the queen is received by mail is just as good as any—simply let out the worker-bees with her, and put back the wire-cloth. If the candy in the cage is exposed, tack a piece of wood over it, and arrange so that the bees of the hive cannot get at the queen except through the wire-cloth. Then lay the cage, wire-cloth side down, bee-space from the tops of the brood-frames. This may require a shallow rim and cover to fit, or if the hive is a two-story one, the rim is put between the two stories, and the caged queen on the lower set of frames.

The hive is then closed, and left for five days, at which time the bee-keeper will open the hive, take out the caged queen, and smoke the bees. Remove each of the brood-combs, and shake off the bees so that every queen-cell can be seen and destroyed. There will seldom be found more than two or three cells, and often none. The cells are, moreover, easy to find, but where a queen is removed from a colony, and none were given back in her place, the bees will build a great number of cells, and some of them may be hard to find—if the bee-keeper waits for nine days, as has been recommended, in order to make the colony absolutely queenless by cutting out all cells before trying to introduce the new queen. It is therefore far better to give the new queen at once, as above advised, after removing the old one.

There is no danger to the caged queen if there is not a particle of food in the cage. The bees will care for her. I have left them thus for two and three weeks—in fact, until the colony had laying workers, when they would no longer accept the queen.

The cells being all removed, the combs are re-arranged in place, and the queen allowed to pass down between the combs, the point at which she went down being noted. Then close the hive, and wait 20 minutes, and re-open it. Remove a comb at the point where the queen disappeared. If she is found running about all right, she is safely introduced. Should she be not found on either of the two combs at the point she entered, or on the bottom of the hive "balled," she is safe, for if the bees decide to "ball" her, she is never allowed to get far from the place she entered, and she will there be found, or at the bottom of the hive "balled;" in which case, the ball of bees is to be lifted out on the ground—no need to be in a hurry, as the bees will not sting the queen, nor let her get away.

Have a smoker at hand ready to light, smoke the ball of bees, and re-cage the queen and leave her on the frames for another two days, when the hive is to be re-opened and the same plan gone over again.

I have had to re-cage some queens three or four times, but the bees will finally accept them. Where I have had this trouble it was from taking all of the brood away, and then trying to introduce. It is not a good way. The bees must first be allowed to build cells, if they will; but they often do not, showing the unanimous acceptance of the queen from the first. After building cells, bees are satisfied to take any queen given as above advised, and I have never yet had one "balled" where so introduced. But

if there is any deviation from the above plan, it will not always work as stated, and re-caging of the queen will be required.

I do not know why some queens are harder to introduce than others, but all go in about the same when the above plan is followed. In my new book I recommended to let the bees liberate the queen by eating out a plug of candy, and this plan seems best for the novice; but for myself I want to see that the queen is all right, and trust to no chance about it whatever.

New Philadelphia, Ohio.

### BEES—POULTRY.

#### An Enthusiastic Texas Woman's Experience and Advice.

Written for the Texas Farm and Ranch  
BY MRS. SALLIE E. SHERMAN.

Bees and poultry—what a theme for the women of our vast State with its vast resources. The possibilities are far beyond my ken. It is thought by some that these are too insignificant to have more than a passing thought; but I beg leave to differ from all who think so. I tell you that if these two industries alone properly combined were to receive thoughtful consideration, there would be more attention paid to these little side-issues, our people would live better, and would be more healthy and happy than at present.

If our women would take hold of these vocations and get out of the house into the pure air and genial sunshine, we would have fewer dyspeptics and more healthy women, who would enjoy life much better than they do at present. Suppose you do get sunburnt, and a few stings occasionally, what of that? Do you find roses without thorns? Could we expect to get delicious honey without getting stung occasionally? Or eat the nice broilers and excellent eggs without looking after the wants of our fowls? Then my advice is for the sickly "houseplants" to engage in something that will call them outside, into the bright sunshine.

I know of nothing better calculated to interest and instruct us, and at the same time to remunerate us for the labor bestowed, than bee-keeping and poultry-raising combined. In doing this, I think it is better to keep only one kind of chickens, but as many other kinds of fowls as you like or can care for. The utmost cleanliness is necessary in order to keep your fowls healthy and in good condition. It takes but a few minutes to sweep and clean out their house daily, when, if put off longer, it is more difficult, and



at the same time endangers the health of your fowls.

I never saw a case of chicken cholera until I moved to Salado. I lost nearly all I had for three years in succession. I inquired what the cholera was, and invariably received the same answer—"bowel-troubles." I determined to find out for myself, so I began *post mortem* examinations. I found in every instance that it was the gall that was most affected. When the chickens fell dead suddenly, I found that the gall had burst. When they dropped around for several days and then died, the bladder containing the gall was full of little perforations, and the fluid would gradually ooze out. About this time I heard of the parched or burnt corn remedy, and also of putting lime in their drinking water. These, with cleanliness, are my sole remedies for the much-dreaded disease.

Always in dressing a chicken I examine the gall, and if it is enlarging, and the covering beginning to get too thin, I put about a tea-spoonful of lime into say one-half gallon of drinking water for them, and feed them charred corn. In fact I parch nearly all the corn I feed my chickens, by putting it in the stove in the ear while the stove is hot immediately after cooking. This consumes but little time, does the work nicely, and is highly appreciated by the fowls. In this way I keep them healthy, and lose no more with the cholera.

You should study well before making your selection of the variety you like best. After you have made it, stick to it, and do not be always changing or mixing up mongrels, if you propose keeping pure stock. In making your selection, you should study your circumstances, surroundings, and market, and be governed accordingly.

The sting of the bee is so peculiarly constructed that if you pull it out, instead of relieving the pain, it adds greatly to it, for instead of pulling out the poison, you push it into the flesh. This is not generally known, hence the severer pain from the sting. Scrape the sting out immediately with a knife, and you scrape the poison out also, and soon forget that you have been stung.

Do not go into the business on too large a scale at first, but let your knowledge increase as your apiary grows. Get some standard work on the subject of bee-keeping, and take at least one good bee-periodical. Study them closely, and try to put every good thing you see mentioned into practical use. Do not, like a lady of my acquaintance, wait until the bees commence swarming, and then have to hunt up the bee-book to see what to do with them. Do not go into the business unless you are determined to

make a success of it. Better never begin than to make a failure.

You must have energy, pluck, patience and perseverance, if you would make a success in bee-keeping and poultry-raising. Get the pure Italian bee to begin with, as I consider them as far superior to the common little blacks, as a Berkshire hog is to a "razor-back." Have an observatory hive conveniently placed, so that you can look at it at any time, and see just what is going on inside, for this is, or should be, the index to the apiary.

You cannot keep bees intelligently without becoming enthusiastic. It awakens a new field of thought never before dreamed of. It changes the despised weed that was once a nuisance and an eye-sore, into the wonderful honey-producing plant. Take for instance the hoar-bound, that is in many places considered a great nuisance; put the tiny flower under the magnifying glass, and look at its wonderful structure and marvelous beauty! From this source alone last year my bees gave me a ton of honey!

Just for a moment think how much honey goes to waste each year in our great State, for want of bees, intelligently managed, to gather it; and how many poor little children there are who never so much as get a taste of the delicious, God-given sweet! In the name of humanity, come out-doors and help me work with the bees.

I, too, used to be a dyspeptic, and did not know for years what it was to feel well. I have lived for months at a time on two scant meals a day, consisting of two glasses of sweet milk and a small hoe-cake or corn-bread with the bran in it, and that, too, when I had plenty. Now I really believe that I am considered the most robust and healthy woman of our town. Thanks to active out-door exercise, and the constant use of honey, for my good health, which I prize more highly than any other earthly blessing. Again I say, "Go thou and do likewise."

Salado, Texas.

## FALL FLOWERS.

### An Excursion to the Mississippi River Bottoms.

Written for the American Bee Journal  
BY W. J. CULLINAN.

For some time neighbor Hayek and myself had been planning an excursion to the valley which bounds the course of the great "Father of Waters," to see what the prospect was for fall honey, and also take a hand at fishing—or, in other words, we were going to "take a day off," and just simply enjoy ourselves.

So on the morning of Aug. 12, after a night filled with visions of big fish and boundless acres of golden bloom, we sallied forth to carry out in fact what we had been enjoying in imagination.

We started in at the foot of "Swallow Hill," and following the course of the great river we waded waist-deep to shoulder-deep through a perfect sea of fall-blooming plants, consisting of Spanish-needle, golden-rod (which is certainly entitled to the proud distinction which will soon be accorded it), wild honey-suckle, heart's-ease, boneset, and myriads of other plants of lesser note. The wild honey-suckle was in full bloom, heart's-ease, golden-rod and boneset were just coming into flower; while Spanish-needle or coreopsis (which stands firmly arrayed against the whole list for honey, at least in this section) would be blooming in about a week; and in my humble opinion, no grander sight ever greeted the eye of the bee-keeper, than this great plant when in full bloom; thousands of acres of it, thickly phalanxed, bares its golden bosom beneath an autumn sky, laden with the air with its rich aroma, and later fulfilling in such bountiful measure the earlier promise of its golden bloom.

Well, after enjoying (as only bee-keepers can) all this wealth of flowering plants, and in the meantime having meandered (almost unconsciously) some two miles down the valley, we began to cast around for a certain lake, which we were told existed thereabouts, and, what was of more importance to us, abounded with fish; soon we came upon a lake that must be the one of which we had been told, but so diminutive in size that we disdained to waste our precious time angling for fish in such a stream, and so moved on; soon we came upon a slough, fed from the river, and in which my friend said that there were some large-sized fish. Here we cast our hooks, richly baited with worms and frogs, but soon discovered that nibbling was the order of the day, and after spending about two hours at this delightful sport, and getting many bites (but no fish) we came to the conclusion that it was too cool and windy, or else the finny inhabitants of this stream had "caught on," and knew how to take the bait without swallowing the hook; and wiser, but no richer, we turned our steps toward home.

Mr. Hayek has concluded to move his bees to the bottoms, and place them right in the midst of all that wealth of bloom; and if his hives are not heavily laden with the precious nectar this fall, it will not be his fault.

His bees are mostly in Heddon hives; and right here I wish to score another

point in favor of that excellent hive: The covers being the exact size of the body of the hive, with a cleat across each end and extending about one inch above the surface of the same, we took pieces of wire screen three inches wide, and tacked one on each side of the cover, and then reversing the latter, tacked the projecting inch of wire to the side of the hive, which gave about 1½ inches of space above the tops of the frames in which the bees could come up and cluster, with ample ventilation from the sides. The entrances were closed by tacking a piece of lath across the same.

A good rain fell here last night—the first of any consequence since June 14. It will benefit the fall bloom as well as other fall crops.

Quincy, Ills., Aug. 21, 1890.

### VISITING.

#### Notes of Travel Among New York Bee-Keepers.

Written for *Gleanings in Bee-Culture*  
BY ERNEST R. ROOT.

The ride by boat on the beautiful Lake Skaneateles to Borodino, to the residence of G. M. Doolittle, was fine. The water was so clear that, just before starting, I could see a large fish at a depth of 12 or 15 feet off the dock. As we steamed out into the lake, the beauty of the scenery became more and more manifest. The shores rise gradually from the water's edge, and off in the distance little towns are pointed out.

"Over in that direction," said the captain, in answer to my inquiry, "is Borodino."

Doolittle has a beautiful location, I thought. There are never any mosquitoes around this lake, I am told; and the water is so clear, and the shores so inviting, it is a wonder that the lake is not more visited by pleasure-seekers.

In about half an hour I was landed on the Borodino dock. As it was rather late I put up at the hotel. The following morning found me on the wheel sailing toward the home of Mr. Doolittle, for his place is about a mile out. I looked along the road to see if I could pick out Mr. D's home. That place doesn't look exactly like it. Finally, from the top of a hill I see a very pretty country residence. Every thing about the place shows neatness and taste, and the buildings are well painted. I wonder if *this* is not the place. As my bicycle travels noiselessly along, suddenly an apiary looms up in the rear. Yes, there is a beecave. This *must* be the place, and so

I turn in. I lean the bicycle against an overspreading apple-tree by the side of the house.

#### AT THE APIARY OF MR. DOOLITTLE.

"Is Mr. Doolittle in?" I inquired of a man in the barn.

"He is in the shop, and will be out presently."

I strolled into the apiary meantime, wondering whether my friend would recognize me. After waiting a moment, somebody steps from the shop. He has a sandy beard, and he looks like a portrait I have seen somewhere.

"Good morning!" I said. "This is Mr. Doolittle, I suppose?"

"And is this Ernest?" said he, grasping my hand. "I had not expected to find you wearing glasses."

"I have been using them ever since I left school, five years ago, and ought to have begun wearing them sooner."

Together we went into the shop. I noticed he was very careful to close the door after him; and the fact that there were no robbers about was pretty good evidence that this was his habit.

As I expected, everything was orderly. In one end of the shop was a small boiler and engine; near the center of the room, a saw-table; beside the windows, a work-bench. Two rooms were partitioned off. One was a bee-proof honey-room, and the other a general study, or sanctum, where he can be in seclusion and write his articles for print. In the latter room he showed me his Hammond type-writer, the machine that does the nice work he sends out. I found it was very simple, and easily operated. A large telescope, mounted upon a substantial tripod, occupied a space upon the floor. The owner not only studies the handiwork of God as he finds it among the bees, but he is delighted with what he learns and sees beyond the vale of this world.

"Mr. Doolittle," I said, "I notice you are interested in one of the branches of optics. Why don't you take up photography, and so illustrate your articles occasionally?"

"Well," said he, laughing, "I had thought of that very thing, but I came to the conclusion that Doolittle had no time with all his other work to fuss with it."

When it is remembered that he does all his work in the apiary, wraps and directs all his queens, answers all his correspondence without the aid of a stenographer, writes regularly for several periodicals, makes all his supplies, keeps up a good garden, takes care of a horse, to say nothing of the services he renders to his church and town, we comprehend somewhat the force of the remark, that "Doolittle has no time" for another branch of optics.

He is precise and methodical in all his work, especially so in queen-rearing; and as it is not an easy matter to get help possessing all these requirements, Doolittle prefers to do Doolittle's work.

Upstairs in the shop Mr. D. has a collection of bee-implements, old and new. He showed me a box containing some old-style honey-boxes, which a few years ago, out of the kind intentions of a supply dealer, had been sent him by *express*. The charges were \$7.50. There was no letter of explanation. Mr. D. paid the charges, and the boxes he has used for kindling-wood. At other times hives and other implements have been sent him, charges paid. He had never even opened some of these packages, as he had no use for them. I take pains to mention this right here, as we have been many times served in the same way. While all this is prompted by kind intentions, don't send stuff without first writing to see whether it will be acceptable.

But, to return: Mr. Doolittle lighted his smoker (a Bingham).

"I suppose," said he as we started, "you don't wear a veil."

"Oh, yes, sir! I do." It's my father you are thinking of.

At this I pulled out my veil, for I carry one with me everywhere, and we together went among the bees.

We looked at the progeny of some of his breeding queens. They were very beautiful. The bands were of a deep yellow, and four in number. Although our friend made no claims as to the fifth, the latter (or what looked like it) showed faintly. The bees from his breeding queens were as handsome as any I ever saw. He did not claim to have originated them, he having obtained them of a bee-keeper who is now out of the business. Mr. L. C. Hearn obtained one of these queens of Mr. Doolittle, and Mr. Timpe, in turn, of Mr. Hearn.

"Now," said Mr. Doolittle, "what next would you like most to see?"

"Suppose we look at some of the cells reared in upper stories. I have my camera here, and I should like to see and show to our readers whether you practice what you preach."

We selected cell-building colonies at random. In the first one we examined there were almost perfect rows of cells built on the artificial bases.

"Hold on a minute," I said, "and I will take a shot at it with my camera. There, I've got it."

"Why," said he, "as quick as that?"

"As quickly as you can snap your fingers," I replied.

So on we examined and photographed four or five other lots of cells; and



so all through, Doolittle practices what he preaches.

"You have your apiary in an orchard. I believe I like that better than grapevines."

"I don't like too much shade, said Mr. D. "I have noticed that those colonies under those very heavy shade trees do not breed up as early, or do as well as those less shaded. There are two trees" (pointing to two very densely foliated apple-trees) "that I shall have to cut out."

About this time Mrs. Doolittle desired him to get some vegetables from the garden. In the meantime I got off upon high ground and took views of the apiary, house, and general premises. The bee-cave had "caved" in recently, on account of the moisture from the bees rotting the boards. To prevent any re-occurrence of such a thing, Mr. D. proposes to use flagging for roof-boards, and then cover with dirt as before.

At dinner we had one of those unconventional bee-talks, in company with another bee-keeper whose name I do not now recall, but who happened to be visiting Mr. D. at the same time; and even after dinner there were so many things to talk about that it was hard to break away.

I oiled my bicycle, fastened the camera under the seat, and was soon on my way, spinning past the shores of another beautiful lake, Otisco by name. This lake, like Skaneateles, is only a short distance from Mr. Doolittle's home. After leaving the lake I wended my way to Marcellus, the home of a once prominent bee-keeper. I continued on my journey, passing teams, until I found myself back in Syracuse. I made the distance in about three hours. I remained in the city over night. Next morning I was in doubt as to whether I should take the train or the wheel. My next run was to be a long one, and I had thought of taking the cars to save time.

As I paid my bill at the hotel, the clerk told me that a "strike" on the New York Central railroad had been inaugurated during the night, and that it was doubtful whether any trains would run during the day. As far as I was concerned, I did not care much. As the depot was near at hand, I went over to satisfy my curiosity. Yes, the trains were stopped, and the agents would sell no tickets to would-be passengers. The strikers were scattered here and there. A company of militia were stationed at the depot. One passenger was cursing and swearing. He had got to make an appointment, and his anger knew no bounds."

"I wish I were fixed as you are," addressing me as he saw the bicycle.

I did not stop to swear and curse with him on the event, but started across the track, and, approaching one whom I took to be a striker, said:

"Are you going to pull out to-day?"

"Guess not, sir."

"Well," said I, "this train of mine hasn't struck yet, and I think I'll pull out;" and with this I started toward Starkville, thanking good fortune that "strikes" don't stop all the wheels of progress, for my wheel at that very moment was spinning along at a rapid rate. I continued until I had gone about 30 miles. I went a little out of my way on account of imperfect directions as to the road.

It being Saturday, and as I could not reach Starkville, the home of Mr. Elwood, without riding on Sunday, I concluded to ride to the next station on the Central railroad, if I could get aboard the cars. I found that there was a chance of getting on a train, and fortunately was able to get to Fort Plain toward evening. Starkville, I was told, was about nine miles from Fort Plain. As I saw the hills, some of them fully a thousand feet high, my heart sank within me.

"It is late," I said to myself, "and to go over an unknown and lonely road among those fearful hills is not inviting."

I buckled up my courage and started; and, to my surprise, in about an hour's time I was before the door of Mr. Elwood, the man who manages successfully over 1,300 colonies. The hills were not as bad as they looked, and the road was not as lonely as it seemed.

#### AT MR. P. H. ELWOOD'S HOME.

I met with a hearty welcome from our big bee-keeper—large in several senses of the word. It was a little embarrassing on my part to come upon a family I had never seen, just at supper time, Saturday night; but when I went to the hotel at Starkville, I was informed that Mr. Elwood had left word that I should come straight to his home, early or late; and accordingly I turned the wheel about, and was soon shooting down (or, rather, up) the road leading to the Elwoods. Their home is situated at the base of a range of hills (I wanted to call them mountains) of anywhere from 500 to 1,000 feet above the valleys. To an Ohio boy this was all new, and I feasted my eyes on the scenery to my heart's content.

The next day was Sunday. I threw off my bicycle suit, and put on ordinary civilian's clothing. As my luggage on the wheel had to be compressed into a tight bundle, my clothing, I fancy, looked as if it had been

through a—well a crimping-machine, or something of that sort. I was glad to go to church with the family; and it didn't matter at all, even if their denomination was different from mine. We all love the Lord, and we differ only in unimportant details as to beliefs. I enjoyed the services, and enjoyed, also, being in a God-fearing family for the Sabbath.

The scenery about Starkville, to an Ohio boy, is grand. While the country is not really mountainous it is very, very hilly. From many of the higher summits the whole Mohawk Valley spreads out before you, and off in the distance the dim outline of the Green Mountains can be seen.

Mr. Elwood kindly offered to take me around the country; and accordingly, the following Monday morning, one of the bee-wagons was hitched up, and we took a ride through the surrounding country, to take in some of the sights, and of course, in the course of the day, visited bee-yards. After driving to the top of one of those high hills, and taking a general survey of the Mohawk Valley and adjacent country (a magnificent view, by the way), we visited a beautiful glen where there were some very curious rock formations—caves, waterfalls, and running springs. My Kodak was in readiness, and I took a number of shots (*i. e.*, views). Vegetable matter that remains for a few years in the water of this glen petrifies. Among the specimens we selected were almost perfect petrified beach leaves, fragments of moss, etc.

It was here first that I noticed what seemed to be true of all this section of country; namely, that the basswoods seemed to grow much more thriftily than in Ohio. The leaves were enormously large. One we measured was 14 inches long, nor did this seem to be exceptional. At Mr. Doolittle's I noticed that the basswoods were of larger and better growth than with us, while on the sidehills of Starkville they were even more so.

We started on our journey again, and were discussing as to whether the large-leaved basswoods were any better for honey than the small-leaved trees, when we drove up to the apiary of J. R. Tunnicliff, of Vanhornsville. Mr. T. owns some 400 colonies in three or four out-yards. He formerly used the ordinary hanging frame; used it faithfully for 50 years. Finally, in 1878, he adopted the closed-end frame, which he is still using. This frame, instead of standing upon a flat tin on the bottom of the hive, hangs in an ordinary wooden rabbit wire means of a projecting headless wire-nail jutting out from the top-bar. In other words, it is a hanging frame with closed-end bars.

In connection he uses a wooden thumb-screw to reduce propolis accumulations. Mr. Tuncliff was very enthusiastic over this arrangement. He declared it the best frame extant. As to the thumb-screw, he owed Mr. Heddon nothing for it, for he borrowed it of Mr. Manum, who had used it for many years before Mr. Heddon. He did not consider Mr. H. the first one to use closed-end frames in a tight-fitting box, for he had used them both in combination since 1878.

He had 400 colonies on these frames; and to show me how nicely they worked he handled several hives. They certainly did work nicely, and as Mr. T. said, he adopted them to save time in handling. The swinging frame took too much time in spacing and too much time all around. He was very enthusiastic over his hive.

## BEE-ESCAPES.

### Another Method of Getting Bees Out of Section-Cases.

*Written for the American Bee Journal*  
BY ROBERT CARVER.

In nearly all branches of business, men profit by the experience of others, and I must say that bee-keeping is not an exception to the rule. Having been a reader of the AMERICAN BEE JOURNAL, I have many times been benefited by the timely suggestions of those who have been longer in the business than myself, and as even exchange is no robbery, why should not I contribute also for the benefit of others?

Now to the question: How to remove bees from the section-case without smoking them out, or otherwise abusing the bees, and do it quickly. Here it is:

Place an empty hive with the cover off, in front of the one where you wish to remove the section-case, place it about 3 or 4 feet away, and a little to one side from the entrance, so the bees from the field can enter without being disturbed. Now place a straight piece of wood about 2 inches square and 2 feet long, on the ground under each end of the hive, and (place the cover over the hive to keep out robbers) should there be any comb built on the bottom of the case, it should be taken off. (I use a long, wide chisel for this purpose). Use a very little smoke from the "Large Bingham smoker" just to quiet the bees as we work.

Now place the case over the empty hive, so that it fits nicely. (The entrance to the empty hive should be previously closed by nailing a piece

over it, so that the bees cannot get out.)

Now jar the hive by raising either end say one-half inch, and dropping it down on the pieces that lie under the hive, in quick succession for nearly half a minute; then raise one end of the case so that it will stand perpendicular, and quickly brush the bees from the bottom of the case with the bee-brush into the hive. Put the case on the ground, or on a board, end upward, take up the hive and empty the bees close to the entrance of the hive, so that they can go in. Place the empty hive back on the pieces, put the case over it, and jar as before, emptying the hive each time, repeating this five or six times when the case is empty of bees and ready to go to the honey-house.

I can empty a case of bees in less than five minutes by this process. My wife usually holds the smoker, and throws a little smoke around the case as I work, to keep the robbers away, and quiet any bees that might feel cross, and so the bees escape out of the case into the hive.

Manton, Mich.

## BEE-KEEPING.

### A Woman's Opinion of Learning the Bee-Business.

*Written for the Farmers' Review*  
BY MRS. L. C. AXTELL.

Many tons of honey go to waste every year because of no bees to gather it. As a rule, bees do not fly more than a distance of three miles around the hive. Within that radius 200 colonies may be successfully kept, if the land produces the right kind of flowers. White clover is the foremost honey-plant in the United States and Canada; but there are many other plants that yield a bountiful supply. Some years those 200 colonies will gather 15,000 pounds of honey—some years more, but often less; then what enormous amounts of honey must go to waste throughout the world.

I have seen it estimated that of two fields of clover of equal size, side by side, one of which you pasture with bees, the other with cows, that the one pastured with bees will produce a greater weight of honey than the field pastured by cows will have butter and cheese, and the cows will have eaten every blade of clover that is in the field, while the bees only fertilize the clover and make it more productive.

As last year was a good year for bees, many were doubtless induced to try bees, a few for their own honey, and others with intentions of going

into it as a business. But unless they are willing to inform themselves how to take care of bees properly, they had better let them alone, as the money paid out for the bees would pay them better if invested in honey. Yet one need not spend a great deal of time in reading; if only he will get a standard book on the subject, and follow its instructions closely, he will be pretty sure to succeed, provided he does not live too far out upon the prairies. I am not quite sure that the bee-business could be very successfully carried on where farm crops make a failure, and where white clover has not grown.

One colony is enough to begin with; then in all my operations I would consult the book; I would at least learn that one book "by heart," as it were, and as my colonies increased, and perseverance held out, I would subscribe for a bee-paper, and add other books.

I would not advise going into the business very steep the first year, in order that you might try yourself a year or two to see if you have stick-to-it-iveness enough to succeed, as I know of no occupation that has had so many "backsliders" as the bee-business. If one already has his hands full of business, better let bees alone. I have noticed this in my experience, that a man succeeds better if his wife is also interested, and helps him. Of course he ought to be able to manage one colony alone, but as his colonies increase it is quite important that the wife stands ready to help, if need be.

It has always seemed to me that bee-keeping was really woman's work. Much of it is not heavy work, and just suited to the weaker sex; though, when run on the large scale of hundreds of colonies, it may become heavy work, unless plenty of helpers are employed. Indeed, we can make hard work of anything. Much depends upon whether we like the business or not, whether it is hard work for us or not. Had I my choice to take sole care of 100 colonies of bees, or do the housework for a family of eight or ten persons, I would unhesitatingly choose the bee-work. Of course, I could not lift all the honey (the hives need no lifting); neither could I get my own wood or coal to cook with, or lift the sack of flour or heavy furniture, or carpets in house-cleaning.

Some claim that it is hot work caring for swarms in the hot sun. We should have suitable shade to work under, and keep all the queens' wings clipped, but the heat of the sun is not so hard to be borne as the heat of a stove in cooking or washing; and above all, it will not do to take everybody's advice, as almost every old farmer who has succeeded in keeping



his bees alive for a term of years, is sure he knows all about bees. You cannot convince him that the queen is not a "king;" he "has seen him lots of times," and the beeswax is gathered by the bees upon their legs in little yellow pellets! He "has seen it, and he knows it is so."

One is apt to succeed if he be wholly dependent upon bee-books for a year or more, or until experience helps him out; but better still, if one is so situated that he can spend a season with an experienced bee-keeper, or can even have the opportunity of occasionally helping those who have had experience.

Roseville, Ills.

## BEE-CAVES.

### Their Construction and Use for Wintering Bees.

Written for the Iowa Homestead  
BY W. M. BOMBERGER.

For high locations and a well-drained porous subsoil, where the entire cavity can be under ground, the following makes an inexpensive cave, and especially desirable where rock is scarce and brick and mortar expensive. I here give a description of a cave I dug eight years ago. It has cost me \$1.50 per year to keep it up, not counting the labor. It was dug for wintering bees. The temperature ranges from 36° to 44° Fahr. In winter it averages 38°—a little too cool for bees, but I lost but one colony in the last four seasons.

This cave is 6x12 feet. It was originally 6 feet deep. The roof is flat instead of the usual pitch. It was made by cutting a 16-foot plank 2 inches thick in two, laying them flat over the hole, the ends extending one foot over the edge on both sides. While digging it out, these pieces of plank can be laid behind the digger, and the dirt thrown back, saving throwing it out and then back again. Then more plank can be laid and more dirt thrown back until the dirt is all thrown out, and lastly throwing the dirt of the entrance back.

Place the entrance at the corner, and parallel with the length of the cave, either east or south, so you can get lumber into it to renew the roof. When the cave is first dug, put a 12-foot (2-inch) plank across the middle of the roof on the inside, and set several good posts under it to receive the weight in the centre.

Now, in two years, when the plank overhead rots so as to show signs of giving away, I renew the roof from the inside with plank, placing them the

other way. When they rot out renew again. A flat-roofed cave can easily be renewed in this way from the inside. A cone roof cannot, and is a nuisance for that reason. Do not trust this work to careless boys or hands, as they might kill themselves.

When you renew the roof, use plenty of posts near the entrance and over where you are working to prevent any accident. If the planks used were soaked well in lime-water, or in some preparation to preserve them, the roof would not have to be renewed so often. Each time I renew, I dig a few inches deeper. The cave is some 7 feet under ground now.

Harlan, Iowa.

## WINTERING.

### Preparing the Bees for Winter, and the Result.

Written for the American Bee Journal  
BY J. A. KING.

I have had a little experience in outdoor wintering of bees which may be of use to some one who has not a good cellar at hand.

A year ago last winter I placed 7 colonies in a row on the south side of the house, thus protecting them from the north wind; I placed a bank of coarse horse-manure along the backs of the hives, and stuffed some of the same in between them. This completed the outside fixing for the winter. The hive-entrances were left open the same as in summer—not even a board was set up on edge in front of the hives.

The reader should know something of the hive in order to understand the situation. It is 24 inches long by 10½ inches deep, 13 inches wide below the rabbets. The 9 brood-frames in the centre take seven-twelfths of its length, leaving a space at each end. These ends give the best possible means for winter packing, either with dry leaves, chaff, or a thick division-board filled with chaff. Sacks of chaff filled the second story. These can be changed during the winter, if need be.

On March 21, 1889, a little pollen was brought in by every one of the 7 colonies, with two others from the cellar. Before the weather changed (on March 25) they all had a good flight, bringing in pollen. Those two from the cellar hardly, I thought, withstood the rigors of spring as well as those wintered out-doors.

Here let me skip to July 4. Two swarms from those wintered outside were put together. There was no choice among the hives, nearly all being in use. One with old sides, double-walled, 2½ inches between the walls,

but never packed, was used to hive this double swarm. They quarreled a little at first, but soon settled down to work. Ninety sections, six of which weighed, when well finished, 7 pounds, were put on at once. The result of the year's work was 140 pounds of comb honey—at least 40 pounds more than I got from any other colony.

The strength of the colony kept up apparently undiminished until they were placed in winter quarters, with 18 others, out-of-doors. These were arranged the same as the seven the winter before, only that a board was set up on edge over the entrance to keep out the wind and snow. The result was that one colony starved; the extractor did it. One more also starved, just as any novice might have known; they were clustered on empty combs in the second story. I should have taken out at least three central combs below, and replaced them with empty combs from above, but I did not, and the bead bees soon filled up the passage-ways below, and starvation followed.

Of the 17 colonies none were dead, but two were queenless and worthless. One of the remaining 15 the eye suspected as queenless. On examination, a queen-cell just ready to hatch out was found. Destroying this cell at once, I went to a weak colony, found the queen, carried the frame with her upon it, and saw her run in at the entrance of the hive desired, in safety. At such a time it would have been fatal for a colony to remain queenless for many days.

I wish to "drive a nail" right here: These 9 frames, equivalent to 7½ Langstroth frames, have served these colonies through the surplus season. They have wintered on them, not one ounce of feed having been given them. They are just booming, and had young bees and brood the first of May. The 15 have done better than the general average of those kept in the cellar; of the latter, only about 65 out of 200 put into the cellar were of any account. Some of them are extra good, but vary in strength to "no good."

I am now about 74 years of age, and from boyhood have worked in wood, in the cabinet and piano shop. For the last 15 years I have been studying how to make the best bee-hive. I have some now on hand that, with the addition of a little work by the painter, I believe would be worthy a place in the Columbian Exhibition of 1893.

Blue Earth Co., Minn., Aug. 26, 1890.

**Are you Going to the Fair?** If so, will you kindly send to this office and get a few samples of the BEE JOURNAL, and give them out to your friends there, and get up a club? We will send them to you with pleasure.

## CONVENTION DIRECTORY.

## 1890. Time and place of meeting.

- Sept. 13.—Susquehanna Co., at Springville, Pa.  
H. M. Seeley, Sec., Harford, Pa.
- Sept. 29.—Capital, at Springfield, Ill.  
C. E. Yocom, Sec., Sherman, Ill.
- Oct. 8.—S. W. Wisconsin, at Platteville, Wis.  
B. Rice, Sec., Boscebel, Wis.
- Oct. 15.—Central Michigan, at Lansing, Mich.  
W. A. Barnes, Sec., Lansing, Mich.
- Oct. 29-31.—International American, at Keokuk, Ia.  
C. P. Dadant, Sec., Hamilton, Ill.
- Oct.—Missouri State, at Mexico, Mo.  
J. W. Rouse, Sec., Santa Fe, Mo.

In order to have this table complete, Secretaries are requested to forward full particulars of the time and the place of each future meeting.—THE EDITOR.

## International Bee-Association.

PRESIDENT—Hon. R. L. Taylor, Lapeer, Mich.  
SECRETARY—C. P. Dadant, Hamilton, Ill.

## National Bee-Keepers' Union.

PRESIDENT—James Heddon, Dowagiac, Mich.  
SEC'Y. AND MANAGER—T. G. Newman, Chicago

SELECTIONS FROM  
OUR LETTER BOX

## Honey from Heart's-Ease.

This has been a very poor season for bees—no surplus nor swarms, except some that swarmed for want of stores. But heart's-ease has begun to yield honey now, and the bees are beginning to build comb, and will probably get enough honey to last until fruit-bloom. This is my fifth year with bees, and I have never known heart's-ease to fail to give sufficient honey to winter the bees safely. I consider it very good winter food, if properly ripened and sealed. There is some golden-rod here, but the bees rarely notice it. I suppose most of the readers of the BEE JOURNAL are aware that the Illinois State Fair will be held at Peoria, Ill., from Sept. 29 to Oct. 3. Let us all go and make a good exhibit, even if it has been a poor season. S. F. TREGO.

Swedona, Ills., Sept. 1, 1890.

## Poor Season for Bees.

This has been a poor season with the bees in this part of the country, caused by a mild winter, a cold, wet spring, and a dry summer. My average per colony, spring count, so far is 2 pounds!

C. A. BUNCH.

Nye, Ind., Aug. 29, 1890.

## Foul Brood Inspectors in Utah.

On page 587 is a short paragraph taken originally from Chas. F. Muth's article on foul brood, wherein is stated that "Utah has a bee inspector in every county, and a 'State' officer drawing pay from the Territory." Bee keepers here would be very happy if such were the case, providing such men were competent; but such is not the case. I have kept and handled bees for six years, and in that time I have not met with an inspector in the discharge of his duties, and if there is an officer paid by the Territory for the purpose named, we cannot learn his name.

The facts that give coloring to the statement of Mr. Muth, is that there has been a law on the statute books, a great deal simi-

lar to the statement in the above quotation, but it is not, or cannot be, enforced—it is, and has been a "dead letter." Bee-keepers, at the time this law was passed, attempted to organize a system of the kind before stated, and did have some bee-inspectors appointed, which proved very unsatisfactory, as some were incompetent, and those that were claim to have received no pay for services rendered. The chief inspector, who is an aged man now, said to me, "Young man, I spent a great deal of my time as inspector, and I have not had one cent for it!"

This statement is made to correct any erroneous idea that may be started in regard to the industry in this section, because, as will be seen, the statement of Mr. Muth is unintentionally misleading. We expect to accomplish in the near future the condition of things as stated in the clipping referred to—it is uphill work though, but with an organization, and a little energy, we hope to overcome the few technicalities in our way, and ultimately meet with success. JNO. C. SWANER.

Salt Lake City, Utah.

## Horses Stung by Bees.

Yesterday, Mr. Henry Lee, a farmer, had four horses hitched to a road-scraper, working on the road, and as he was going by Mr. Hastings', something was wrong with the machine, and they stopped to fix it, when Mr. Hastings' bees attacked the horses and stung them so that two died right there, and the other two cannot stand up this morning. The two that died were worth \$300. Mr. Lee's son was badly hurt in trying to unhitch the horses. Yesterday was a lowery day—it rained a fine mist the most of the day. The accident happened in the town of Mayfield, Lapeer county, Mich.,  $2\frac{1}{2}$  miles from this place.

CHAS. E. CUSHING.

Lapeer, Mich., Aug. 22, 1890.

[While such accidents as the above are to be regretted very much, indeed, they should serve to warn people not to allow sweaty horses to stand near the hives of bees. The bees are frequently unjustly blamed for unfortunate occurrences which result from carelessness or ignorance on the part of drivers of horses. Bee-keepers should take pains to inform those around them of the danger there is in tying or stopping horses very close to bee-hives, and thus avoid the recurrence of such sad and disastrous accidents as the one recorded in Mr. Cushing's letter.—ED.]

## Wintering and Hunting Bees.

There was one "pointer" that I omitted in my letter on wintering bees, on page 357. I bore a  $\frac{3}{4}$ -inch hole in each end of the hive half way up, and cover it with wire-cloth, driving a small tack in each corner, which gives them air, as the entrance low down becomes clogged with dead bees, and the live ones smother. I have lost several fine colonies in that way. I intend to improve by putting holes in the same manner on the sides high up, this fall; it requires but little expense and short time. The hole in front I leave open in summer.

We had a great profusion of basswood blossoms in July. My bees have not stored surplus comb honey as last season, but the hives are heavy, and the bees will be in good condition for winter. There are only four hives that they have filled the 28 one-pound sections.

I have noticed several articles in the bee-papers and the New York World on hunting bees. I can beat all such hunting, having hunted bees since 1845, more or less. I hear of about 50 runaway swarms that have come in our direction this season, which I hope to have time to look after next month. One came over my fields going northwest, up 20 feet; the boys and I gave chase to the woods, but they left us far in the rear. We had a severe frost on Aug. 22, that "scooped" everything in some places. I have escaped so far.

E. G. SLATTON.

Chetek, Wis., Aug. 24, 1890.

## Light Honey Crop, etc.

The honey crop with us is light, and prospects poor for any to be gathered this fall, as the drouth has been so severe. There will be but little, if any, surplus. The bee-keepers must make a grand display at the Columbian Exposition, in 1893.

ARTHUR EVANS.

Saybrook, Ills., Sept. 3, 1890.

## Gentle Italian Bees, etc.

I have Italian bees, and would have no other in my yard. They are pleasant with children, and will not sting much, even if you sit on their hives, when you cannot come within 10 feet of the black bees. The golden-rod and aster are in full bloom, and the bees are booming on them.

JACOB SHAFFER.

South Park, Ky., Aug. 30, 1890.

## One of the Vervains—Drouth.

I send you a plant that I would like to know the name of. It has been the plant that has kept our bees alive during the late drouth. We have had some fine showers the past week; the drouth is broken now, and we may yet get enough honey to winter our bees. There is little or no surplus. S. H. CLARK.

Elwood, Iowa, Aug. 21, 1890.

[It is *Verbena hastata*, one of the very numerous vervains. It has long been recognized as a good producer of honey.—ED.]

## Rocky-Mountain Bee-Plant.

I send a sample of a plant that grows wild here. In most places it blooms about the first of August, and grows very rank. The bees work on it all day. I wish you would tell what it is, and if it bears honey. This has been a very poor year for honey here—no surplus yet worth noting.

W. H. COGIL.

Central City, Nebr., Aug. 23, 1890.

[It is the "Rocky-Mountain bee-plant" (*Cleome Integrifolia*). This is a beautiful plant, and is said to furnish large quantities of excellent honey. It grows naturally in the Rocky Mountains, and in Colorado.—ED.]

**Trial Subscribers.**—In order to get as many as possible to read the AMERICAN BEE JOURNAL, we will take Trial Subscribers from the time the subscription is received until the end of 1890 for 25 cents each. Or for any one sending us \$1.00 for 1891, we will give the numbers for this year free from the time the subscription is received at this office—so the sooner they subscribe the more they will get for the money.





ALFRED H. NEWMAN,  
BUSINESS MANAGER.

## Business Notices.

Subscribers who do not receive their papers promptly, should notify us at once.

Send us one new subscription, with \$1.00, and we will present you with a nice Pocket Dictionary.

Red Labels are nice for Pails which hold from 1 to 10 lbs. of honey. Price \$1.00 per hundred, with name and address printed. Sample free.

Calvert's No. 1 Phenol, mentioned in *Cheshire's Pamphlet* on pages 16 and 17, as a cure for foul brood, can be procured at this office at 25 cents per ounce, by express.

Send us two new subscriptions, with \$2.00, and we will present you with a "Globe" Bee-Veil for your trouble. (See the fuller notice in the advertising columns.)

The date on the wrapper-label of this paper indicates the end of the month to which you have paid. If that is past, please send us a dollar to advance that date another year.

Please send us the names of your neighbors who keep bees, and we will send them sample copies of the *BEE JOURNAL*. Then please call upon them and get them to subscribe with you.

Any of the Political Dollar Weekly Newspapers will be clubbed with our *JOURNAL* at \$1.85 for the two; or with both our *HOME JOURNAL* and *BEE JOURNAL* for \$2.25 for all three papers.

As there is another firm of "Newman & Son" in this city, our letters sometimes get mixed. Please write *American Bee Journal* on the corner of your envelopes to save confusion and delay.

Systematic work in the Apiary will pay. Use the *Apiary Register*. Its cost is trifling. Prices:

For 50 colonies (120 pages) .....	\$1 00
" 100 colonies (220 pages) .....	1 25
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When talking about Bees to your friend or neighbor, you will oblige us by commending the *BEE JOURNAL* to him, and taking his subscription to send with your renewal. For this work we will present you with a copy of the *Convention Hand Book* by mail, postpaid. It sells at 50 cents.

A "Binder" made especially for the *AMERICAN BEE JOURNAL*, and lettered in gold, makes a very convenient way of preserving the copies of the *BEE JOURNAL* as fast as they are received. We offer it, postpaid, for 60 cents; or as a premium for two new subscriptions, with \$2.00. It cannot be mailed to Canada.

## HONEY AND BEESWAX MARKET.

CHICAGO, Aug. 28.—Comb honey is held very firmly this week, and the prices for white in pound sections range from 16@17c, and some fancy at 18c, but the bulk of the sales are at 17c. Demand is quite good, and more could be sold than is coming. Extracted, 6@8c; there are free offerings of California at 6@7c. R. A. BURNETT, 161 S. Water St.

NEW YORK, Aug. 25.—New comb honey is now arriving, and finds ready sale. We quote: Fancy white 1-lbs. in paper boxes, 16@18c; the same glassed or unglased, 15@17c; the same, 2-lbs., 14@15c; off-grades, 1-lbs., 13@14c; 2-lbs., 11@12c. Extracted, basswood, 7½@8c; California, 6¼@7c; Southern, 65@70c per gallon.

HILDRETH BROS. & SEGELKEN,  
28-30 West Broadway.

MILWAUKEE, Aug. 23.—This market now offers good encouragement for honey. The old stock of white comb is all gone, and new, choice, 1-lbs. will meet a sweet reception. We quote 1-lb. choice white, 15@16c; good white 1-lbs., 14@15c; fair white 1-lbs., 13@14c; choice 2-lbs., 13@14c. Extracted in barrels, choice white, 7@8c; in kegs and tin, 8@8½c. Beeswax, 26@30c.

A. V. BISHOP, 142 W. Water St.

KANSAS CITY, Sept. 5.—Demand for comb honey continues good, but supply light. We quote: White 1-lbs., 15@16c; 2-lbs., 13@14c. Dark 1-lbs., 13@14c; 2-lbs., 12@13c. White extracted, 7c; dark, 5@6c. Beeswax, No. 1, 25c. CLEMONS, MASON & CO.,  
Cor. 4th and Walnut Sts.

CHICAGO, Aug. 21.—New honey arriving very slowly, demand active, and all receipts are taken promptly. We quote: White clover 1-lbs., 16@18c; 2-lbs., 14@15c; dark 1-lbs., 11@12c; 2-lbs., 9@10c. Extracted meets with quick sale, values ranging from 6¼@7½ cts., depending upon quality and style of package. Beeswax, 28@30c.

S. T. FISH & CO., 189 S. Water St.

KANSAS CITY, August 6.—Demand is good for the new crop, and receipts are very light. White 1-lbs., 15c; 2-lbs., 13@14c. Dark 1-lbs., 12@13c; 2-lbs., 12c. Extracted, white, 7c; dark, 5@6c.

HAMBLIN & BEARSS, 514 Walnut St.

DETROIT, Aug. 12.—Very little new comb honey in the market, and it is selling at 14@15c. Extracted, 7@8c. Beeswax, 28@27c.

M. H. HUNT, Bell Branch, Mich.

DENVER, Aug. 7.—Old honey all gone. New crop is arriving freely. Prospect good for a fall crop. We quote: 1-lbs., 14@16c. Extracted, 6@8c. Beeswax, 20@25c.

J. M. CLARK COM. CO., 1517 Blake St.

BOSTON, Aug. 15.—New honey is coming in and we are selling at 18c. Extracted, 7@8c. Beeswax, 30c for fancy yellow.

BLAKE & RIPLEY, 57 Chatham Street.

CINCINNATI, Aug. 20.—Good demand for comb and extracted honey. Arrivals are insufficient for the demand. We quote best white comb at 14@16c. Extracted at 5@8c. Beeswax is in fair demand at 24@26c on arrival for good to choice yellow.

C. F. MUTH & SON,  
Corner Freeman & Central Aves.

**Bee-Keeping for Profit**, by Dr. G. L. Tinker, is a new 50-page pamphlet, which details fully the author's new system of bee-management in producing comb and extracted honey, and the construction of the hive best adapted to it—his "Nonpareil." The book can be had at this office for 25 cents.

Send us the Names and addresses of any of your friends upon whom you desire to call, to get their subscriptions, and we will immediately send them each a sample copy. In this way you can readily get them for a club.

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### HOSPITAL REMEDIES.

What are they? There is a new departure in the treatment of disease. It consists in the collection of the specifics used by noted specialists of Europe and America, and bringing them within the reach of all. For instance, the treatment pursued by special physicians who treat indigestion, stomach and liver troubles only, was obtained and prepared. The treatment of other physicians, celebrated for curing catarrh, was procured, and so on till these incomparable cures now include disease of the lungs, kidneys, female weakness, rheumatism and nervous debility.

This new method of "one remedy for one disease" must appeal to the common-sense of all sufferers, many of whom have experienced the ill effects, and thoroughly realize the absurdity of the claims of Patent Medicines which are guaranteed to cure every ill out of a single bottle, and the use of which, as statistics prove, has ruined more stomachs than alcohol. A circular describing these new remedies is sent free on receipt of stamp to pay postage, by Hospital Remedy Company, Toronto, Canada, sole proprietors.

51D26t 1mly.

## Advertisements.

WE FIND that we have not reserved a single copy of our special edition of the *Companion and Prize Weekly*, and would be much pleased if some of our friends would return us a copy or two. E. L. PRATT, Pratt Bee-Farm, Marlboro, Mass. 37Alt

Mention the *American Bee Journal*.

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37A2t

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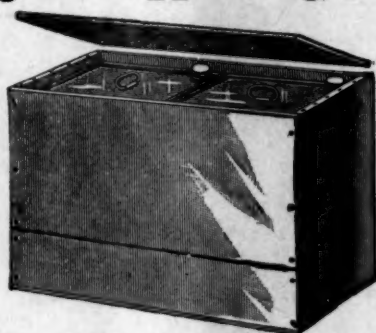
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